

## ABSTRACT

According to the present invention, it is possible to calculate appropriate chirp factor and noise component amount with a little processing amount.

Input subband signal is segmented into a plurality of ranges by a range segmentation unit 101. The range segmentation is performed for energy value calculation, chirp factor calculation, noise component calculation, and tone component calculation, respectively, and determined range segmentation information  $e_i$ ,  $b_i$ ,  $q_i$ , and  $h_i$  are outputted. Respective processing for the energy calculation, the chirp factor calculation, the tone component calculation, and the noise component calculation are performed sequentially for the respective corresponding ranges. By using linear prediction processing, it is possible to obtain an parameter having higher accuracy with a little operation amount.